

Hydromagnetic Waves and Interstellar Pickup Ions: Recent Ulysses Observations

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Since the first reported observations of waves accompanying the solar wind pickup of freshly ionized interstellar hydrogen, we have continued to identify and analyze further examples including those in more recent high latitude data acquired by Ulysses. The polarization of the waves, since they are expected to be left-handed (rotate around the field in the same sense as the ions), has been emphasized using several analytical techniques. Quantitative comparisons between the observed power spectra and those predicted by theory have been carried out. Waves associated with the pickup of interstellar He^+ have been sought. The accumulating data have been used in an attempt to obtain statistical information regarding the conditions which favor wave growth.

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